

METHOD AND APPARATUS FOR FABRICATING A CONFORMAL  
THIN FILM ON A SUBSTRATE

ABSTRACT OF THE DISCLOSURE

A method and apparatus for fabricating a conformal thin film on a substrate are disclosed. The method includes introducing a gas from a gas inlet into an expansion volume associated with an atomic layer deposition (ALD) system. The gas is flowed through a diffuser plate adjacent to the expansion volume and a reaction chamber. The diffuser plate includes a protrusion located opposite the gas inlet and the protrusion reduces turbulence in the expansion volume.